

NSG-211US



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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Nobuyuki Komaba et al.  
Serial No.: 10/088,268  
Filed: March 14, 2002  
FOR: LIGHT-RECEIVING ELEMENT  
ARRAY

: Art Unit:  
: Examiner:

*3 / IPS*  
*E. Usillo*  
*4-25-03*

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

S I R :

Pursuant to 37 C.F.R. §§ 1.97 and 1.98 and to the duty of disclosure set forth in 37 C.F.R. § 1.56, the Examiner in charge of the above-identified application is requested to consider and make of record the references listed on the PTO 1449 (R&P) submitted herewith. A copy of each of the listed references is also enclosed.

Although the information submitted herewith may be "material" to the Examiner's consideration of the subject application, this submission is not intended to constitute an admission that such information is "prior art" as to the claimed invention.

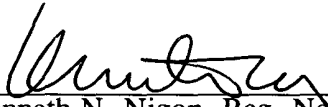
In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made.

Japanese Patent Application Nos. 1-201971, 2-58878, 1-106342, 10-107310, 2-143471, 4-37066 and 11-150253 are not in the English language, an English abstract thereof is attached to the copies of the references submitted herewith.

No first Official Action has yet been received and it is presumed that none has yet been mailed.

No fee or certification is required. 37 C.F.R. § 1.97(b).

Respectfully submitted,

  
Kenneth N. Nigon, Reg. No. 31,549  
Attorney for Applicants

Encls.: PTO Form 1449,  
Copy of (9) References  
Search Report

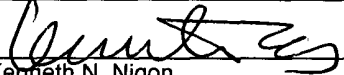
Dated: April 25, 2002

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The Assistant Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. **18-0350** of any fees associated with this communication.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on:

April 25, 2002

  
Kenneth N. Nigon

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 2-32) PATENT AND TRADEMARK OFFICE  <b>Information Disclosure Statement by Applicant</b>  (Use several sheets if necessary)	ATTY. DOCKET NO. NSG-211US	SERIAL NO. <b>01PE</b> 10/088,268
	APPLICANT Nobuyuki Komaba et al.	
	FILING DATE March 14, 2002	GROUP <b>TRADEMARK OFFICE</b>

## U.S. PATENT DOCUMENTS

Exmr Initial	Document Number	Date	Name	Class	Sub Class	Filing Date
	5,288,989	2/22/94	Ishaque et al.			
	4,987,505	1/22/91	Iwabuchi et al.			

## FOREIGN PATENT DOCUMENTS

Exmr Initial	Document Number	Date	Country	Class	Sub Class	Translation YES   NO
	01-201971	8/14/89	Japan			X
	02-058878	2/28/90	Japan			X
	01-106342	4/24/89	Japan			X
	10-107310	4/24/98	Japan			X
	02-143471	6/1/90	Japan			X
	04-037966	2/7/92	Japan			X
	11-150253	6/2/99	Japan			X

## OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

	1)	PCT International Search Report, August 21, 2001

Examiner

Date Considered

Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP01/06121

A. CLASSIFICATION OF SUBJECT MATTER  
Int.Cl.<sup>7</sup> H01L31/105

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl.<sup>7</sup> H01L31/10-31/119, H01L27/14-27/148

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1940-1996	Toroku Jitsuyo Shinan Koho	1994-2001
Kokai Jitsuyo Shinan Koho	1971-2001	Jitsuyo Shinan Toroku Koho	1996-2001

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 1-201971 A (Fujitsu Limited), 14 August, 1989 (14.08.89) (Family: none)	1-9
Y A	JP 2-58878 A (NEC Corporation), 28 February, 1990 (28.02.90) (Family: none)	1-6 7-15
Y A	US 5288989 A (Ishaque), 22 February, 1994 (22.02.94) (Family: none)	1-6 7-15
A	JP 1-106342 A (Victor Company of Japan, Limited), 24 April, 1989 (24.04.89), & US 4987505 A	9
Y A	JP 10-107310 A (Japan Aviation Electron Ind. Ltd.), 24 April, 1998 (24.04.98) (Family: none)	10-13 14-15
Y A	JP 2-143471 A (Fujitsu Limited), 01 June, 1990 (01.06.90) (Family: none)	10-13 14-15
A	JP 4-37066 A (Fuji Xerox Co., Ltd.), 07 February, 1992 (07.02.92) (Family: none)	14-15

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search  
09 August, 2001 (09.08.01)Date of mailing of the international search report  
21 August, 2001 (21.08.01)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP01/06121

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 11-150253 A (Hamamatsu Photonics K.K.), 02 June, 1999 (02.06.99) (Family: none)	14-15